



# 6CD6-GA BEAM POWER TUBE

Supersedes Type 6CD6-G

6CD6-GA

## GENERAL DATA

### Electrical:

Heater, for Unipotential Cathode:

Voltage . . . . . 6.3 . . . . . ac or dc volts

Current . . . . . 2.5 . . . . . amp

Direct Interelectrode Capacitances (Approx.):<sup>o</sup>

Grid No.1 to plate. . . . . 1.1  $\mu\text{f}$

Grid No.1 to cathode & grid No.3,  
grid No.2, and heater . . . . . 22  $\mu\text{f}$

Plate to cathode & grid No.3,  
grid No.2, and heater . . . . . 8.5  $\mu\text{f}$

### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Voltage . . . . . 60 175 volts

Grid-No.2 (Screen-Grid) Voltage . . . 100 175 volts

Grid-No.1 (Control-Grid) Voltage. . . 0 -30 volts

Mu-Factor, Grid No.2 to Grid No.1 . . - 3.9

Plate Resistance (Approx.). . . . . - 7200 ohms

Transconductance. . . . . - 7700  $\mu\text{mhos}$

Plate Current . . . . . 230\* 75 ma

Grid-No.2 Current . . . . . 21\* 5.5 ma

Grid-No.1 Voltage (Approx.) for  
plate current of 1 ma . . . . . - -55 volts

### Mechanical:

Mounting Position . . . . . Vertical, base up or down, or  
Horizontal with pins 2 and 7 in vertical plane

Maximum Overall Length. . . . . 5"

Seated Length . . . . . 4-1/4"  $\pm$  3/16"

Maximum Diameter. . . . . 1-9/16"

Bulb. . . . . T-12

Cap. . . . . Small (JETEC No.C1-1)

Base. . . . . Short Medium-Shell Octal 8-Pin  
with External Barriers, Style A (JETEC No.B8-110),  
or Short Medium-Shell Octal 8-Pin  
with External Barriers, Style B (JETEC No.B8-118)

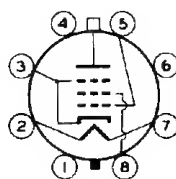
Basing Designation for BOTTOM VIEW. . . . . 5BT

Pin 1 - No Connec-  
tion

Pin 2 - Heater

Pin 3 - Cathode,  
Grid No.3

Pin 4 - No Connec-  
tion



Pin 5 - Grid No.1

Pin 6 - No Connec-  
tion

Pin 7 - Heater

Pin 8 - Grid No.2

Cap - Plate

<sup>o</sup> Without external shield.

\* These values can be measured by a method involving a recurrent wave form such that the cathode current will be kept within ratings in order to prevent damage to the tube.

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## HORIZONTAL DEFLECTION AMPLIFIER

Maximum Ratings, Design-Center Values Except as Noted:

For operation in a 525-line, 30-frame system<sup>□</sup>

DC PLATE VOLTAGE . . . . .	700	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE (Absolute maximum) <sup>⊕</sup> . . . . .	7000 <sup>■</sup>	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE . . . . .	1500	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE . . . . .	175	max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE . . . . .	-50	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE . . . . .	200	max.	volts
CATHODE CURRENT:			
Peak . . . . .	700	max.	ma
Average . . . . .	200	max.	ma
GRID-No.2 INPUT . . . . .	3	max.	watts
PLATE DISSIPATION <sup>†</sup> . . . . .	20	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode . . . . .	200	max.	volts
Heater positive with respect to cathode . . . . .	200 <sup>▲</sup>	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface) . . . . .	225	max.	°C

## Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For grid-resistor-bias operation<sup>†</sup> . . . . 0.47 max. megohm

□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

■ Under no circumstances should this absolute value be exceeded.

⊕ The duration of the voltage pulse must not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

† It is essential that the plate dissipation be limited in the event of loss of grid signal. For this purpose, some protective means such as a cathode resistor of suitable value should be employed.

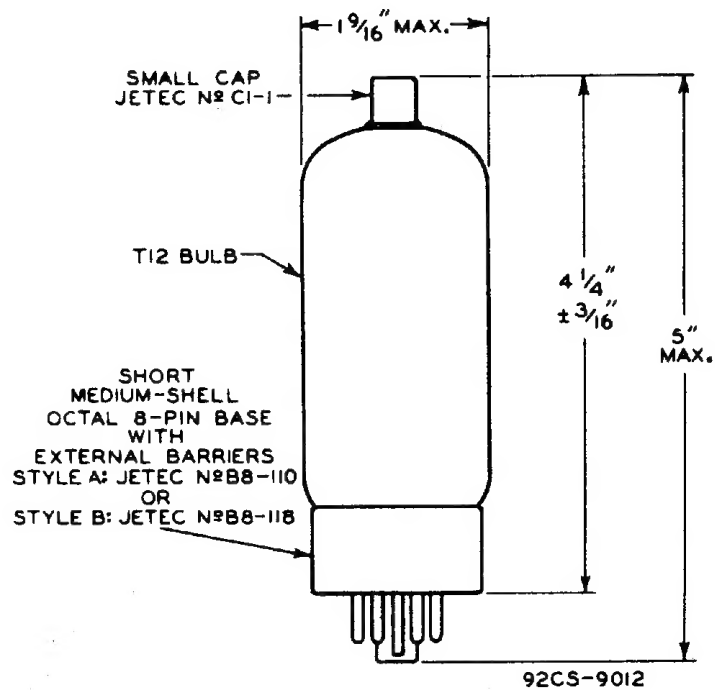
▲ The dc component must not exceed 100 volts.



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TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

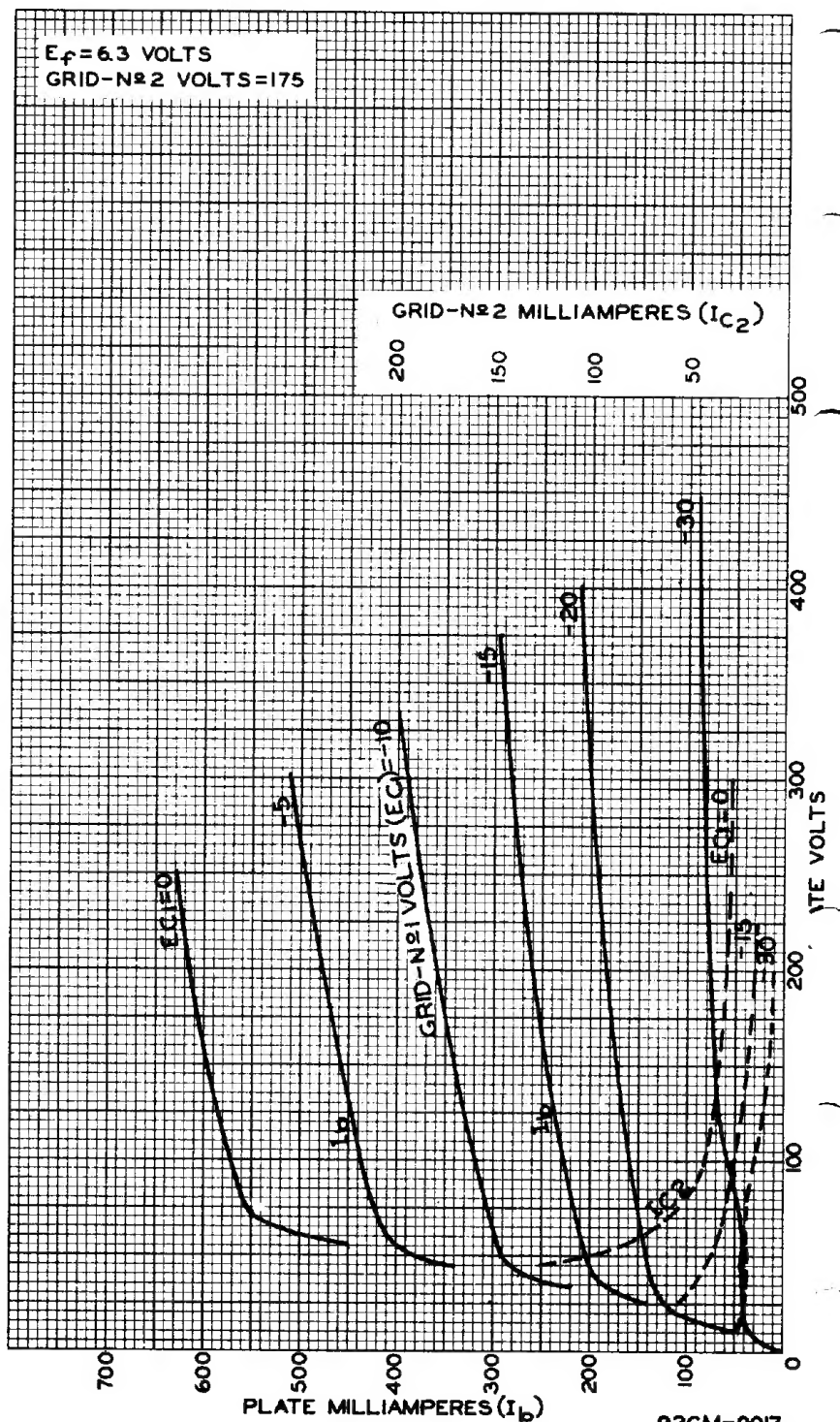
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# AVERAGE CHARACTERISTICS



92CM-9017

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